

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A magnetic steering angle detection apparatus, comprising:

~~a magnet~~ magnets rotating at different speeds in synchronization with a steering shaft mounted on a vehicle; and

[[a]] magnetic sensors sensor mounted adjacent respective magnets ~~on a column~~ side, the magnetic sensors sensor configured to detect a rotation angle of the steering shaft by sensing a change of a magnetic field emitted from the ~~magnet~~ magnets,

wherein [[the]] each magnet has S and N poles arranged on a plane of which a normal line is in a substantially axial direction of the steering shaft; and

[[the]] each magnetic sensor is disposed such that a sensing direction thereof is set to be a substantially single direction ~~and the sensing direction is made to substantially coincide coinciding~~ with the axial direction of the steering shaft.

2. (Currently Amended) A magnetic steering angle detection apparatus, comprising:

a first gear rotating in synchronization with a steering shaft mounted on a vehicle; a second gear rotating in synchronization with the first gear at a speed faster than a speed of the first gear;

a third gear rotating in synchronization with the first gear at a speed slower than a speed of the second gear;

magnets rotating in synchronization with the second and third gears, respectively;

magnetic sensors provided on column sides and in vicinities of the magnets of the second and third gears, respectively, the magnetic sensors configured to sense changes of magnetic fields from the magnets of the second and third gears; and

a computation unit configured to compute a rotation angle of the steering shaft by detecting rotation angles of the second and third gears based on sensing signals from the magnetic sensors,

wherein each of the magnets provided on the second and third gears has S and N poles arranged on a plane of which normal is in a substantially axial direction of the steering shaft; and

each of the magnetic sensors is disposed such that a sensing direction thereof is set to be a substantially single direction and the sensing direction is made to substantially coincide with the axial direction of the steering shaft.

3. (Currently Amended) The magnetic steering angle detection apparatus according to claim 1, wherein [[the]] each magnetic sensor is provided on a position where a component of the magnetic field from the magnet in the axial direction of the steering shaft is detectable.

4. (Original) The magnetic steering angle detection apparatus according to claim 2, wherein the magnetic sensors are provided on positions where components of the magnetic fields from the magnets in the axial direction of the steering shaft are detectable.

5. (Currently Amended) The magnetic steering angle detection apparatus according to claim 1, wherein [[the]] each magnetic sensor is a hall IC formed of a plurality of hall elements.

6. (Original) The magnetic steering angle detection apparatus according to claim 2, wherein the magnetic sensors are hall ICs, each of which is formed of a plurality of hall elements.